

## 102.5 Copper "Benchmark" (block, chip and rod forms) [50-g units (unless otherwise noted)]

SRMs with a "C" prefix are chill-cast blocks approximately 32 mm square and 19 mm thick.

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PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	Type	Cu (mass fraction, in %)	Elemental Composition (mass fraction, in mg/kg)																						
			Sb	As	Bi	Cr	Co	Fe	Pb	Mn	Ni	Se	Ag	S	Te	Sn	Zn	Al	Cd	Au	Mg	Si	Pd	P	Zr
Chip	Rod/Chill Cast																								
395	494	Unalloyed Copper I	99.908	4.5	2.6	0.35	2.0	0.5	147	26.5	3.7	11.7	2.00	50.5	15	0.58	70	405	(<2)	(0.5)	(0.07)	(<1)	(<2)		
	495	Unalloyed Copper II	99.944	8.0	1.6	0.50	6		96	3.25	5.3	5.4	0.63	12.2	13	0.32	1.5	12.2	(<2)	(0.4)	(0.13)	(<1)	(<2)		
	496	Unalloyed Copper III	99.955	<1	<0.2	0.07	4.3	0.4	143	0.41	7.5	4.2	0.62	3.30	9.5	(0.02)	0.8	5.0	(<2)	(0.6)	(<0.05)	(<1)	(<2)		
398	457	Unalloyed Copper IV	99.96	0.2	0.2	0.2	(0.3)	(0.2)	2.0	0.5	<0.1	0.6	4.2	8.1	(4)	0.29	<0.2	<11	(<2)	(<1)	(<0.05)	(<1)	(<2)		
		Unalloyed Copper V	99.98	7.5	25	2.0	(0.3)	2.8	11.4	9.9	(0.3)	7.0	17.5	20.1	(11)	10.1	4.8	24	(<2)	(22)	(0.1)	(<1)	(<2)		
	498	Unalloyed Copper V	99.98	7.4	25	2.0	(0.3)	2.7	11	10	(0.3)	7.0	17.5	20.1	(11)	10.1	5	25	(<2)	(<22)	(0.1)	(<1)	(<2)		
399	499	Unalloyed Copper VI	99.79	30	47	10.5	(0.5)	0.5	20.0	114	(0.3)	506	95	117	(10)	50	(~90)	45	(<2)	(<1)	(4)	(<1)	(<2)		
454 (35 g)	500	Unalloyed Copper VII	99.70	102	140	24.5	(0.5)	0.6	41	128	(0.2)	603	214	181	(9)	153	(~200)	114	(<2)	(<1)	(10)	(<1)	(<2)		
	C1251a	Phosphorus Deoxidized Copper VIII	99.89	14.9	16	3.7	(3)	13.2	285	23.5	4.6	23.6	11	80	(35)	16	16	24	(<20)	(<3)	15.5	(<20)	(<50)	420	
	C1252a	Phosphorus Deoxidized Copper IX	99.87	42	118	(19)	19	87	72	60	43	128	56	158	(70)	54.6	120	69.4	(<20)	16.9	33.9	(<20)	(<100)	125	69.4
	C1253a	Phosphorus Deoxidized Copper X	99.46	139	436	(56)	260	454	290	243	357	491	136	494	(50)	168	499	329	176	70	72	(150)	(580)	561	329
		Unalloyed copper XI	99.84	24	46	19		(4)	(50)	66		(150)	479	286		27	2.2	7			7.5			(0.1)	

Values in parentheses are not certified and are given for information only.